

REMARKS

Claims 1 through 12 are pending in the application.

Claims 1, 10 and 11 have been amended to clarify that the beverages of the invention do not include xylose. Support for this amendment can be found in the Application-as-filed, for example on Page 5, lines 11 through 15 in conjunction with Formula (I) on Page 5.

Applicants respectfully submit that this amendment does not raise new issues, but merely places the application in condition for allowance or, alternatively, in better form for appeal. Reexamination and reconsideration of this application, withdrawal of all rejections, and formal notification of the allowability of the pending claims are earnestly solicited in light of the remarks which follow.

Claim Objections

Applicants respectfully confirm that Claims 4 and 8 were amended within the Amendment of October 15, 2003 to correct informalities noted by the Examiner. Applicants Representative regrets any inconvenience that the typographical error within the status identifier of these claims may have caused.

The Claimed Invention is Patentable in Light of the Art of Record

Claims 1 through 12 stand rejected under 35 USC 103(a) as unpatentable over JP 10337164 A ("JP 164"); JP 09248153 A ("JP 153") and JP 08056607A ("JP 607") to Shimizu (collectively referred to as "Shimizu") in view of DE 19653354 C1 to Jager et al ("Jager").

It may be useful to consider the invention as recited in the claims before addressing the merits of the rejection. The claims recite beverages comprising at least one xylooligosaccharide and at least

one intense sweetener, in which the at least one xylooligosaccharide is not xylose. In advantageous embodiments, the beverage comprises 0.01 to 5% by weight, based on the beverage, of xylooligosaccharide other than xylose, as recited in Claim 4. In further beneficial aspects of the invention, the beverage comprises 0.1 to 2.0 % by weight, based on the beverage, of xylooligosaccharide other than xylose, as recited in Claim 12.

As noted in Applicants Amendment of October 15, 2003, the overall impression of beverages is formed by the combination of the beverage's aroma, sweetness impression, acidity impression and color. The quality, particularly the flavor, of a beverage is critically influenced by the interaction of each of its constituents, with each constituent potentially influencing several aspects of the overall impression.

Applicants have determined that xylooligosaccharides other than xylose can, even at relatively small doses, significantly improve the full-bodied character of beverages containing intense sweeteners, and can thus significantly enhance the overall flavor impression. In contrast to the opinion urged with the Office Action, such results are altogether unexpected. Applicants have further determined that xylooligosaccharides in such relatively small amounts as concentrations ranging from about 0.01 to 5% by weight are effective, as recited in Claim 4. Applicants have further determined that xylooligosaccharides are effective even in more limited concentrations, such as from 0.1 to 2.0 % by weight, as recited in Claim 12.

In contrast to the claimed invention, Shimizu incorporates a specific mixture of particular xylooligosaccharides without additional sweeteners to produce less flavorful beverages, i.e. the "reduced sweetness" noted in JP 164, the "elegant low sweet taste" noted in JP 607, and the "delicate and low sweetness" noted in JP 153. Shimizu specifically requires xylose within his xylooligosaccharide mixtures. In fact, Shimizu's xylooligosaccharide mixtures may be made up of a majority of xylose, i.e. anywhere from a minimum of 3 up to 55 % xylose. Although noting the exact composition of the xylooligosaccharide mixture, Shimizu's English Abstract is silent as to the amounts in which the xylooligosaccharide mixture is used within further products.

Applicants respectfully reiterate that Shimizu does not teach or suggest the claimed invention, considered either alone or in combination with the art of record. Shimizu does not teach or suggest beverages comprising at least one xylooligosaccharide which is (are) not xylose and at least one intense sweetener. In fact, Shimizu teaches away from the recited absence of xylose, by specifically requiring its presence. As noted previously, Applicants continue to submit that Shimizu further teaches away from the recited intense sweeteners by seeking to reduce the sweetness of the resulting beverages. Shimizu also teaches away from the beneficial aspects of the invention recited in Claim 2, in which xylobiose is the smallest possible xylooligosaccharide provided in the formula. Shimizu also does not teach or suggest the advantageous embodiments reflected in Claim 4, reciting 0.01 to 5 % by weight of xylooligosaccharide, and most certainly does not teach or suggest the advantageous embodiments reflected in Claim 12, reciting 0.1 to 2.0 % by weight of xylooligosaccharide.

As noted within the Amendment of October 15, 2003, Jager is merely directed to the use of oligosaccharides, such as inuline and oligo-fructose, to increase the sweetening power of an acesulfame K/aspartame mixture. As noted in the Application as filed (Page 3, lines 21 through Page 4, line 1), such known oligosaccharides must be added in considerable amounts, e.g. up to 10% by weight, to achieve the desired level of activity.

Applicants respectfully submit that Jager, considered either alone or in combination with the art of record, does not teach or suggest the claimed invention, reciting beverages comprising at least one xylooligosaccharide. Jager most certainly not such beverages in which the xylooligosaccharide is not xylose. Jager similarly does not teach or suggest the xylooligosaccharides of Claim 2. And Jager certainly does not teach or suggest the beneficial xylooligosaccharide amounts recited in Claims 4 and 12. In fact, Jager teaches away from such amounts by incorporating significantly greater amounts of oligosaccharides into his compositions.

Applicants continue to respectfully submit that there would have been no motivation to have combined these references. Applicants respectfully reiterate that merely because the references can

be combined is not enough, there must still be a suggestion. MPEP 2143.01 (section citing Mills). Applicants also respectfully reiterate that Shimizu would not have been motivated to incorporate Jager's acesulfam-K/aspartame mixture, because Shimizu sought to provide compositions with lesser sweetness. The nature of Shimizu's problem was thus altogether different from the claimed invention, hence there would have been no suggestion to a skilled artisan to make the combination. Further, Applicants respectfully submit that the combination would be expected to render Shimizu unsatisfactory for its intended purpose. More particularly, the combination, which would include at least one intense sweetener, would not be expected to produce Shimizu's beverages exhibiting "reduced sweetness."

However, even if combined (which Applicants submit should not be done), the present invention would not result. Applicants respectfully submit that the references must be considered as a whole, for all that they teach. MPEP 2141.02 Shimizu expressly requires the presence of xylose in each of the cited references. Xylose is clearly excluded from the claims as amended. Jager is merely directed to the use of oligosaccharides, such as inuline and oligo-fructose.

Consequently, neither Shimizu or Jager, alone or in combination, teach or suggest the recited beverages comprising at least one xylooligosaccharide and at least one intense sweetener, in which the xylooligosaccharide is not xylose. Nor does the combination teach or suggest the beneficial embodiments reflected in Claim 2. And the combination certainly does not teach or suggest the advantageous embodiments reflected in Claim 4, reciting 0.01 to 5 % by weight of xylooligosaccharide or the advantageous embodiments reflected in Claim 12, reciting 0.1 to 2.0 % by weight of xylooligosaccharide.

Accordingly, Applicants respectfully submit that Claims 1 through 12 are patentable in light of the art of record, considered either alone or in combination.

Consideration of Previously Submitted Information Disclosure Statement

It is noted that an initialed copy of the PTO Form SB/08A submitted with Applicants' Information Disclosure Statement filed April 23, 2003 has not been returned to Applicants' representative with the Office Action. Accordingly, it is requested an initialed copy of the Form SB/08A be forwarded to the undersigned with the next communication from the PTO. In order to facilitate review of the reference by the Examiner, a copy of the Information Disclosure Statement and the Form SB/08A are attached hereto. Copies of the cited references were provided at the time of filing the original Information Disclosure Statement, and, therefore, no additional copies of the references are submitted herewith. Applicants will be pleased to provide additional copies of the references upon the Examiner's request if it proves difficult to locate the original references.

CONCLUSION

It is respectfully submitted that Applicants have made a significant and important contribution to the art, which is neither disclosed nor suggested in the art. It is believed that all of pending Claims 1 through 12 are now in condition for immediate allowance. It is requested that the Examiner telephone the undersigned if any questions remain to expedite examination of this application.

It is not believed that fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional fees are necessary to allow consideration of this paper, the fees are hereby authorized to be charged to Deposit Account No. 50-2193.

Respectfully submitted,

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I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office at facsimile number (703) 872-9306 on June 28, 2004.

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